

WHAT IS CLAIMED IS:

✓ 1. An isolated nucleic acid molecule selected from the group consisting of:

- 5 a) a nucleic acid molecule comprising a nucleotide sequence which is at least 80% identical to the nucleotide sequence of SEQ ID NO:1, or SEQ ID NO:3, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, or the nucleotide sequence of the
- 10 DNA insert of the plasmid deposited with ATCC as Accession Number _____;
- b) a nucleic acid molecule comprising a fragment of at least 300 nucleotides of the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, or the nucleotide sequence of the
- 15 DNA insert of the plasmid deposited with ATCC as Accession Number _____;
- c) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____;
- 20 d) a nucleic acid molecule which encodes a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, wherein the fragment comprises at least 15 contiguous amino acids
- 25 of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as
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Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____; and

- e) a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof, under stringent conditions.

2. The isolated nucleic acid molecule of claim 1, which is selected from the group consisting of:

- a) a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, or the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____; and
- b) a nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____.

3. The nucleic acid molecule of claim 1 further comprising vector nucleic acid sequences.

4. The nucleic acid molecule of claim 1 further comprising nucleic acid sequences encoding a heterologous polypeptide.

5. A host cell which contains the nucleic acid molecule of claim 1.
6. The host cell of claim 5 which is a mammalian host cell.
- 5 7. A non-human mammalian host cell containing the nucleic acid molecule of claim 1.
- ✓ 8. An isolated polypeptide selected from the group consisting of:
- a) a polypeptide which is encoded by a nucleic acid molecule comprising
- 10 a nucleotide sequence which is at least 80% identical to a nucleic acid comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, the nucleotide sequence of the DNA insert of the plasmid deposited with ATCC as Accession Number _____, or the nucleotide sequence of the DNA insert of the
- 15 plasmid deposited with ATCC as Accession Number _____, or a complement thereof.
- b) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with
- 20 the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof under stringent conditions; and
- 25 c) a fragment of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the
- 30 plasmid deposited with the ATCC as Accession Number _____, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2.

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9. The isolated polypeptide of claim 8 comprising the amino acid sequence of SEQ ID NO:2.

10. The polypeptide of claim 8 further comprising heterologous amino acid sequences.

11. An antibody which selectively binds to a polypeptide of claim 8.

✓ 12. A method for producing a polypeptide selected from the group consisting of:

a) a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, or the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____;

b) a polypeptide comprising a fragment of the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, wherein the fragment comprises at least 15 contiguous amino acids of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____; and

c) a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, the amino acid sequence encoded by the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____, wherein the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising SEQ ID NO:1, SEQ ID NO:3, or a complement thereof under stringent conditions;

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comprising culturing the host cell of claim 5 under conditions in which the nucleic acid molecule is expressed.

13. A method for detecting the presence of a polypeptide of claim 8 in a sample, comprising:

- a) contacting the sample with a compound which selectively binds to a polypeptide of claim 8; and
- b) determining whether the compound binds to the polypeptide in the sample.

14. The method of claim 13, wherein the compound which binds to the polypeptide is an antibody.

15. A kit comprising a compound which selectively binds to a polypeptide of claim 8 and instructions for use.

16. A method for detecting the presence of a nucleic acid molecule of claim 1 in a sample, comprising the steps of:

- a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule; and
- b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

17. The method of claim 16, wherein the sample comprises mRNA molecules and is contacted with a nucleic acid probe.

18. A kit comprising a compound which selectively hybridizes to a nucleic acid molecule of claim 1 and instructions for use.

19. A method for identifying a compound which binds to a polypeptide of claim 8 comprising the steps of:

- a) contacting a polypeptide, or a cell expressing a polypeptide of claim 8 with a test compound; and

- b) determining whether the polypeptide binds to the test compound.

20. The method of claim 19, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:

- 5 a) detection of binding by direct detecting of test compound/polypeptide binding;
b) detection of binding using a competition binding assay;
c) detection of binding using an assay for 26583-mediated signal transduction.

10 21. A method for modulating the activity of a polypeptide of claim 8 comprising contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.

15 22. A method for identifying a compound which modulates the activity of a polypeptide of claim 8, comprising:

- a) contacting a polypeptide of claim 8 with a test compound; and
b) determining the effect of the test compound on the activity of the
20 polypeptide to thereby identify a compound which modulates the activity of the polypeptide.

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25 23. A method of modulating the proliferation, survival, or differentiation of a 26583-expressing cell, comprising contacting the cell with an agent that modulates the activity or expression of a 26583 polypeptide or nucleic acid, in an amount effective to modulate the proliferation, survival, or differentiation of the cell.

24. The method of claim 23, wherein the 26583-expressing cell is a lung, brain, liver, colon, or breast cell.

30 25. The method of claim 23, wherein the agent is a peptide, a phosphopeptide, a small molecule, an antibody, or any combination thereof.

26. The method of claim 23, wherein the agent is an antisense, a ribozyme, a triple helix molecule, a 26583 nucleic acid, or any combination thereof.

27. A method of treating or preventing a disorder characterized by aberrant activity or expression of a 26583 nucleic acid or polypeptide, in a subject, comprising administering to the subject an effective amount of an agent that modulates the activity or expression of a 26583 polypeptide or nucleic acid such that the disorder is ameliorated or prevented.

10 28. The method of claim 27, wherein the disorder is selected from the
group consisting of a metabolic disorder, or a cellular proliferative or differentiative
disorder.

29. The method of claim 27, wherein the agent is a peptide, a
15 phosphopeptide, a small molecule, an antibody, or any combination thereof.

30. The method of claim 27, wherein the agent is an antisense, a ribozyme, a triple helix molecule, a 26583 nucleic acid, or any combination thereof.

20 31. A method for identifying an agent which modulates the activity or expression of a 26583 polypeptide or nucleic acid, comprising contacting the 26583 polypeptide or nucleic acid with a test agent; and determining the effect of the test agent on the activity or expression of the polypeptide or nucleic acid.

25 32. The method of claim 31, wherein the activity of the 26583 polypeptide is a protein phosphatase activity.

33. The method of claim 31, wherein the activity of the 26583 polypeptide is proliferation, differentiation, or survival of a 26583 -expressing cell.

34. The method of claim 31, wherein the 26583 -expressing cell is a lung, brain, liver, colon, or breast cell.

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35. The method of claim 31, wherein the agent is a peptide, a phosphopeptide, a small molecule, an antibody, or any combination thereof.
- 5 36. The method of claim 31, wherein the agent is an antisense, a ribozyme, a triple helix molecule, a 26583 nucleic acid, or any combination thereof.

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